

IN THE SPECIFICATION

Please amend the Specification as follows:

On page 3, line 8 please substitute the following paragraph:

According to the present invention, there is provided a medical guide wire having an elongated and flexible core member, and a front catheter engagement portion that is formed from an ellipsoidal helical spring or a mirror-finished barrel-shaped portion [provided around the core member and formed into a bulged shape or a truncated cone shape, a diameter of which progressively decreases as approaching a rear end of the front catheter engagement portion].

On page 5, line 1 please substitute the following paragraph:

a2
The front catheter engagement portion is [in] integral with the leading bulge portion to readily introduce the leading bulge portion into the stricture blood vessel area. The front catheter engagement portion corresponds to a circumferential rear half portion of the leading bulge portion.

On page 7, line 18 please substitute the following paragraph:

a3
Referring to Figs. 1 and 2 which show a medical guide wire 1 and a tubular balloon catheter 2 used to the medical guide wire 1 according to a first embodiment of the invention, a helical spring 6 is coiled around an elongated and flexible core member, a front end of which has a head portion 4a [3a].

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On page 8, line 2 please substitute the following paragraph:

A4

Around a front portion of the helical spring 6, an ellipsoidal helical spring is provided to form a leading bulge portion 5. The ellipsoidal helical spring 3 has a maximum diameter (D2), which forms a barrel shaped helical spring [a rear half of which forms a front catheter engagement portion 8 shaped into a truncated cone configuration, a diameter of which progressively decreases as approaching a rear end of]. A rear half of the leading bulge portion 5 is formed into the front catheter engagement portion 8.

On page 8, line 13 please substitute the following paragraph:

A5

In the leading bulge portion 5, the ellipsoidal helical spring 3 (acting as a barrel-shaped helical spring of maximum diameter (D2)) is fixed to the helical spring 6 by means of a soldering or adhesive. The helical spring 6 has forward portion 6a and a rearward portion 7a each connected consecutively along the core member 4. The ellipsoidal helical spring 3 has line elements arranged over the helical spring 6 with a certain clearance (C) appearing [appeared] between the line elements. The ellipsoidal helical spring 3 forms the expandable front engagement portion 8 extending from the maximum diameter section (D2) to a boundary area in which the maximum diameter section (D2) starts [start] to descend to the small diameter section (D1).

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On page 12, line 10, please substitute the following paragraph:

The open front end of the balloon catheter 2 is rolled inward to define a rolled end 11.

a6
The rolled end 11 fits into the clearance (C) of the ellipsoidal helical spring 3 which is sandwiched between a diameter-reduced forward helical spring 3c [3A] and a diameter-reduced rearward helical spring 3a to provisionally connect the balloon catheter to front engagement portion 8.

On page 14, line 9, please substitute the following paragraph:

a7
Fig. 6 shows a fourth embodiment of the invention in which a front catheter engagement portion 8A of the barrel-shaped bulge portion is formed around the helical spring 6 into a gourd-shaped (columnar-shaped) configuration. The front catheter engagement portion 8A is mirror-finished after molding it from the hot melt adhesive based on polyamide, polyethylene or the like (thermally sensitive adhesive) or silicone-based adhesive (reactant type adhesive).

On page 14, line 17, please substitute the following paragraph:

a8
An open end section of the balloon catheter 2 has a pair of diametrically opposed open-end axial carves 12 in the form of a kerf, slit, slot, or notch. The axial carves 12 help expand the balloon catheter 2 when fitting the balloon catheter 2 over the front catheter engagement portion 8A to provisionally connect them readily. A front catheter engagement portion 8B is cut at its outer surface to have an outer notch flat section 13 as described hereafter in Figs. 7 and 8.

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On page 14, line 23, please substitute the following paragraph:

A9
The adhesive materials make [makes] it possible to soften so as to the front catheter engagement portion 8A more flexible when the medical guide wire 1 is manipulated. The mirror [mire] finish treatment renders the balloon catheter 2 to tightly attach o the front catheter engagement portion 8A so as to stabilize the function of the provisionally connecting member

9A.

On page 15, line 8, please substitute the following paragraph:

A10
It is noted that carves 12 [21] are not always necessary, and the carves 12 [21] may be omitted depending on the front catheter engagement portion 8A (8B). Instead of using the adhesive materials to the front catheter engagement portion 8A (8B), an annular tube may be soldered around the helical spring 6 to form the front catheter engagement portion. Otherwise, the front catheter engagement portion may be formed by depositing multi-layered solder on the helical spring 6.

On page 15, line 18, please substitute the following paragraph:

A11
Fig. 9 shows a sixth embodiment of the invention in which the leading bulge portion 5 forms a composite helical spring structure combining a first ellipsoidal helical spring 20 with a second ellipsoidal spring 21. Line elements 15 of the first diametrically increased ellipsoidal helical spring 20 are [is] diametrically greater than diametrically reduced line elements 16 of the second ellipsoidal spring 21.

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